IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTORNEY DOCKET NO.:
BO9-99-013

In re Application of: §
REINHARD H. HOHENSEE §
§   Examiner: **CHAU T. NGUYEN**
§
Serial No.:   09/461,521 §
§   Art Unit: 2176
Filed: 12/14/1999 §
§
For: **METHOD AND SYSTEM FOR** §
MULTIFORMAT PRESENTATION §
§
§

APPEAL BRIEF UNDER 37 C.F.R. 1.192

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Sir:

This Appeal Brief is submitted in triplicate in support of an Appeal of the Examiner's final rejection of claims 1-2, 4-7, 9-12 and 14-15 in the above-identified application. Notice of Appeal was filed in this case on June 29, 2004 and received in the patent office on July 6, 2004. Please charge the fee of $320.00 due under 37 C.F.R. § 1.17(c) for filing the brief, as well as any additional required fees, to IBM Deposit Account No. 50-0563.

REAL PARTY IN INTEREST

The real party in interest in the present Appeal is International Business Machines Corporation, the Assignee of the present application as evidenced by the Assignment recorded at reel 010446 and frame 0404 et. seq.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellants, the Appellants' legal representative, or assignee, which directly affect or would be directly affected by or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 1-2, 4-7, 9-12 and 14-15 stand finally rejected by the Examiner as noted in the Final Office Action dated January 29, 2004.

STATUS OF AMENDMENTS

Appellants' Amendment C, filed on April 29, 2004, was entered by the Examiner. No amendments to the claims have been made subsequent to the final rejection that leads to this appeal.

An Amendment D was proposed subsequent to the Final Rejection dated June 3, 2003 for purposes of overcoming the rejection of claims 22-23 under 35 U.S.C. § 112, second paragraph, in the Final Office Action. It is believed that this Amendment will be entered by the Examiner subsequent to the Advisory Action dated June 10, 2004, and therefore the rejection of all pending claims under Section 112 will be withdrawn and is no longer before the Board.

SUMMARY OF THE INVENTION

As described in the Abstract of the present application, a method and system for storing data in multiple formats based on the nature of the data and the characteristics of the possible output devices are disclosed. The disclosed invention, when coupled with a data processing system and multiple presentation devices, is designed to minimize processing requirements and processing time while maximizing output quality. The method and system provide outputting of a data set to a physical output device such as a display, a printer, a fax, or a logical output device such as an email generator or any other data processing system. A data set is broken into objects and further into units so that each unit within an object contains a similar data type. Units that

require less processing power for presentation are stored in a device-independent format. Units that require more processing power for presentation are stored in device-independent format and device dependent format determined by the presentation parameters of an attached peripheral presentation device. At presentation time, a document database, or storage area, assembles the document from the units determined by the presentation device. The document is composed of data that is specific for the presentation device or data that is device independent.

ISSUES

(1) Is the Examiner's rejections of claims 1-2, 4-7, 9-12, and 14-15 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention well founded?.

(2) Is the Examiner's rejections of claims 1-2, 4-7, 9-12, and 14-15 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,336,124 B1 to *Alam et al.*, issued January 1, 2002, filed July 7, 1999 in view of U.S. Patent No. 5,813,020 to *Hohensee et al.*, issued September 22, 1998, U.S. Patent Number 5,767,833 to *Vanderwiele et al.*, issued June 16, 1998, and U.S. Patent Number 6,590,674 B1 to *Orton*, issued July 8, 2003, filed September 23, 1999 well founded?

GROUPING OF THE CLAIMS

For purposes of this Appeal, all pending claims stand or fall together as a single group.

ARGUMENT

I. REJECTION UNDER 35 U.S.C. § 112

Claims 1-2, 4-7, 9-12, and 14-15 have been rejected under § 112 as not particularly pointing out and distinctly claiming the invention. As Appellants have indicated in the STATUS OF THE CLAIMS section, it is believed that the Examiner has entered the proposed Amendment after Final Office Action and that the Rejection under § 112 has been overcome. However, in the alternative, if this rejection is still pending before the Board, Appellants submit that this rejection is not well-founded and should be reversed.

As claimed in exemplary claim 1, the comparison step includes a comparison with a "device-dependent format". In other steps within the exemplary claim 1, data units are stored based on results of a comparison between the "predetermined level" and the processing required for a "device-dependent format." Appellants maintain that the device-dependent format identified in each of the storing steps is not limited to the same device-dependent format utilized in the comparison step. As Appellants read the claim, the comparison inherently included in each of the storing steps is not necessarily the same comparison step recited and therefore the recited device-dependent formats may or may not be the same device-dependent formats. Therefore, the recitation of "said" to refer back to the previously identified device-dependent format is an unnecessary limitation on exemplary claim 1 based on Appellants' reading of the claim. Consequently, Appellants submit that the rejection of the pending claims under § 112 is not well-founded and should be reversed.

II. REJECTION UNDER 35 U.S.C. § 103(a)

A. The Step of "Comparing" is Not Shown or Suggested

With respect to exemplary claim 1, therein is recited the step of:

> *for each unit, comparing an amount of data processing required to convert said unit to device-dependent format to a predetermined level of data processing;*

Neither *Orton, Vanderwiele, Alam,* nor *Hohensee* show or suggest this element of exemplary claim 1. While it is argued on page 4 of the Final Office Action that performing such a comparison results in advantages when the units are subsequently stored in accordance with the comparison (the step of "comparing"), Appellant submit that nothing within the prior art suggests making such a comparison.

It is argued on page 8 of the Final Office Action that this step is suggested by *Vanderwiele* at col. 5, line 19 – col. 6, line 12. However, it is quite clear from the description in *Vanderwiele,* and the flowchart as shown in Fig. 3, that there is no comparison or calculation performed based on "an amount of data processing required to convert" to the various formats. As explained in cols. 5 and 6 and as seen at steps 304, 306, 310, 320, 308 and 330, the only comparison or determination made in the flow of the methodology described in Fig. 3 is of the device and image type. Most importantly, the conversion from device independent bits to device dependent bits is performed in <u>every</u> case presented to the methodology (see end blocks 314, 328 and 338) and not in selected cases in response to any comparison. The only determination made by the system is what resolution or device-dependent format the image should be converted to. *Vanderwiele* is not making any comparison of "amount of data processing" and therefore cannot be showing or suggesting the present invention.

B.   The Prior Art Fails to Show or Suggest "Storing" as recited

Exemplary claim 1 further recites the step of:

> *storing said units, requiring less than said predetermined level of data processing to convert to device-dependent format, in device-independent format*

> *storing said units, requiring more than said predetermined level of data processing to convert to device-dependent format, in device-dependent format based on the classified plurality of presentation devices;*

Appellant submit that nothing within the prior art suggests storing the units based on whether the level of processing required to convert to a device-dependent format exceeds a threshold as determined by the comparison. On page 5 of the Final Office Action, it is argued that storing "units" in device-independent or device-dependent format, depending upon a comparison of the amount of data processing required to convert the unit to a device-dependent format, would have been obvious to one of ordinary skill in the art at the time of the invention. In particular, the Examiner relies on the quote from the abstract of *Vanderwiele* specifying that their system "determines whether [an] image is targeted for multiple hardware formats or a

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single hardware format and then provides a conversion form device-independent bits to device-dependent bit formats in the case of the multiple hardware format targeting, or performing image conversion appropriate for the single device in the case of the single device targeting." In both cases, *Vanderwiele* teaches going to a device dependent format. This teaching merely suggests that the type of conversion is a function of whether one target device or multiple target devices are targeted for the image, and doesn't contemplate converting as a function of the processing power required to convert from device-independent to device-dependent format.

Appellants respectfully submit that it is not possible for any of the cited art to suggest the above step in exemplary claim 1 because nowhere does the prior art even contemplate an algorithm for conditioning such a conversion or the storage thereof on the "amount of data processing required to convert said unit to device-dependent format" as the deciding factor in making such a conversion. Both the *Orton* and *Vanderwiele* references cited teach storing units in dependent and independent formats, respectively, without considering whether storing in such a format is proper in light of the speed of delivering data, or the level of processing required.

The references nowhere show storing or output of images or units in DIB (device independent bits), and therefore cannot be showing or suggesting the step of "storing said unit, requiring less than said predetermined level of data processing to convert to device-dependent format, in device-independent format," as is recited in exemplary claim 1. Given the failure of the prior art to show or suggest this element of exemplary claim 1, Appellant respectfully submit that the present invention as claimed in exemplary claim 1, and further similarly as claimed in the remaining pending claims, is patentable over the prior art, and the rejection under Section 103 should be reversed.

C.   Improper Hindsight Has Been Used to Reject the Claims

While the Examiner appears to recognize that the prior art does not show or suggest making the above comparison before determining the type of format to be used in storing the image data, the Examiner nonetheless argues in the present Office Action that such a method would be obvious based on the benefits presented by the present invention. Appellant respectfully submit that such an analysis concludes that the present invention is obvious in hindsight of the present invention.

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Since the references nowhere suggest "storing" in conformance with the claims, the Examiner argues that someone of ordinary skill would find the advantages of the present invention as obvious, and then work backward by arguing that, since the invention is useful, it must have been obvious. Defining the motivation or suggestion to modify the prior art to arrive at the present invention in terms of its advantages reveals improper hindsight in the selection of the prior art relevant to obviousness. "Defining the problem in terms of its solution reveals improper hindsight in the selection of the prior art relevant to obviousness." *Monarch Knitting Machinery Corp. v. Fukuhara Industrial & Trading Co., Ltd.,* 139 F.3d 977, 45 USPQ2d 1977 (Fed. Cir.1998). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not based on Appellant' disclosure. (See *In re Vaeck,* 947 F.2d 488, 20 USPQ 2d 1438 (Fed. Cir. 1991)).
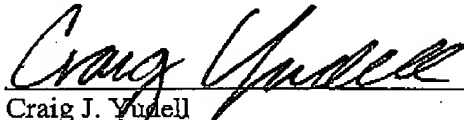
The Examiner presents as "evidence" a bare assertion that the logical process of determining whether to store units in dependent or independent formats is obvious without citing a single reference that performs or suggests making such a comparison before storing units. Appellant submit that the Examiner has not set forth evidence sufficient to support a prima facie case of obviousness. "However, the test of whether it would have been obvious to select specific teachings and combine them as did the Applicant must still be met by identification of some suggestion, teaching or motivation in the prior art, arising from what the prior art would have taught a person of ordinary skill in the field of the invention." *In re Dance,* 160 F.3d 1339, 48 USPQ2d 1635 (Fed. Cir. 1998). The Examiner's evidence of obviousness is created from broad conclusory statements about the knowledge of those ordinary skill in the art without any objective evidence of a suggestion for making the comparison and then storing the units accordingly, as performed in exemplary claim 1 in the present application. Again, Appellant respectfully submit that such a rejection is improper. "Determination of obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention." *ADT Corp. v. Lydall, Inc.,* 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002).

CONCLUSION

In summary, Appellant submit that the prior art of record does not show or suggest comparing the processing power required to convert a unit of an object within a document to a device dependent format in order to determine whether it should be stored in device-dependent or device-independent format and that the rejection under Section 103 should be reversed. Further, Appellant respectfully submit that there is no motivation or suggestion in the prior art to make the combination of steps, means, and instructions as recited in independent claims 1, 6, and 11 and that the Examiner has derived such suggestion in hindsight of the present invention.

Appellants have pointed out with specificity the manifest error in the Examiner's rejections, and the claim language which renders the invention patentable over the combination of references. Appellants, therefore, respectfully requested that this case be remanded to the Examiner with instructions to issue a Notice of Allowance with respect to all pending claims.

Respectfully submitted,

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APPENDIX

1.   In a data processing system having a central processing unit, memory, at least one user output device, and a user input device, a method for retrieving and presenting stored documents on a plurality of output devices each requiring different presentation parameters, comprising the steps of:

parsing a document into one or more objects;

parsing each object into one or more units;

classifying a plurality of presentation devices;

for each unit, comparing an amount of data processing required to convert said unit to device-dependent format to a predetermined level of data processing;

storing said units, requiring less than said predetermined level of data processing to convert to device-dependent format, in device-independent format;

storing said units, requiring more than said predetermined level of data processing to convert to device-dependent format, in device-dependent format based on the classified plurality of presentation devices;

receiving a request from a presentation device of the plurality of presentation devices;

assembling said document from said stored units; and

sending said assembled document to said presentation device.

2.   The method of claim 1, wherein parsing each object into one or more units, further comprises:

determining type of each said unit.

3.   (canceled)

4.   The method of claim 1, wherein classifying said connected presentation devices, further comprise:

determining acceptable document formats for said connected presentation devices; and

classifying said devices according to device-dependent characteristics.

5.   The method of claim 1, wherein receiving a request from said peripheral presentation device for said target document, further comprises:

      determining whether said device is known or unknown.

6.   In a data processing system having a central processing unit, memory, at least one user output device, and a user input device, a system for retrieving and presenting stored documents on a plurality of output devices each requiring different presentation parameters, comprising:

      logic means for parsing a document into one or more objects;

      means for parsing each object into one or more units;

      discrimination means for classifying a plurality of presentation devices;

      for each unit, comparing an amount of data processing required to convert said unit to device-dependent format to a predetermined level of data processing;

      means for storing said units, requiring less than said predetermined level of data processing to convert to device-dependent format, in device-independent format;

      means for storing said units, requiring more than said predetermined level of data processing to convert to device-dependent format, in device-dependent format;

      receiving means for receiving a request from a presentation device of the plurality of presentation devices;

      logic means for assembling said document from said stored units; and

      transmitting means for sending said assembled document to said presentation device.

7.   The system of claim 6, wherein logic means for parsing each object into one or more units, further comprises:

      comparison means for determining a type of each said unit.

8.   (canceled)

9.   The system of claim 6, wherein discrimination means for classifying said connected presentation devices, further comprise:

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comparison means for determining acceptable document formats for said connected presentation devices; and

classification means for classifying said devices according to device-dependent characteristics.

10.   The system of claim 6, wherein receiving means for receiving a request from said peripheral presentation device for said target document, further comprises:

means for determining whether said device is known or unknown.

11.   In a data processing system having a central processing unit, memory, at least one user output device, and a user input device, a computer program product within a computer readable medium having instructions for retrieving and presenting stored documents on a plurality of output devices each requiring different presentation parameters, comprising the steps of:

instructions within said computer program product for parsing a document into one or more objects; and

instructions within said computer program product for parsing each object into one or more units;

instructions within said computer program product for classifying a plurality of presentation devices;

for each unit, instructions for comparing an amount of data processing required to convert said unit to device-dependent format to a predetermined level of data processing;

instructions within said computer program product for storing said units, requiring less than said predetermined level of data processing to convert to device-dependent format, in device-independent format;

instructions within said computer program product for storing said units, requiring more than said predetermined level of data processing to convert to device-dependent format, in device-dependent format;

instructions within said computer program product for receiving a request from a said presentation device of the plurality of presentation devices;

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instructions within said computer program product for assembling said document from said stored units; and

instructions within said computer program product for sending said assembled document to said presentation device.

12.   The computer program product of claim 11, wherein instructions for parsing each object into one or more units, further comprises:

instructions within said computer program product for determining a type of each said unit.

13.   (canceled)

14.   The computer program product of claim 11, wherein instructions for classifying said connected presentation devices, further comprises:

instructions within said computer program product for determining acceptable document formats for said connected presentation devices; and

instructions within said computer program product for classifying said devices according to device-dependent characteristics.

15.   The computer program product of claim 11, wherein instructions for receiving a request from said connected presentation device for said target document, further comprises:

instructions within said computer program product for determining whether said peripheral device is known or unknown.

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